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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,228	11/20/2001	Jody Garrard	US018188	9687

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Corporate Counsel
Philips Electronics North America Corporation
580 White Plains Road
Tarrytown, NY 10591

EXAMINER

SUNG, CHRISTINE

ART UNIT PAPER NUMBER

2878

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,228

Applicant(s)

GARRARD ET AL.

Examiner

Christine Sung

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Response to Amendment

1. The amendment filed on October 14, 2003 has been entered.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 7, 12 and 17-20, it is unclear as to whether the plurality of objects is defined to be separate objects, i.e. 2 humans, or the plurality of objects is two objects within one person, i.e. a heart and lungs. Based on the specification, the examiner assumes that the invention relates to simultaneous detection of two separate objects using the same detector setup, but requests that the distinction be made clearer in the claims.

The balance of claims are objected to for being dependent upon an already rejected claim.

Applicant states that the claims satisfy § 112 second paragraph requirements upon reading the detailed description. The argument is not persuasive because “plurality of objects” can be interpreted as a heart and a lung of one patient (for example) or two completely separate patients. In light of the specification the examiner assumes that the applicant is claiming two separate patients, however, that limitation is not clearly stated.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hug et al. (US Patent 6,150,662).

Regarding claims 1, 7 and 12 Hug et al. discloses a medical imaging device comprising: a plurality of detectors (elements 10 and 11) for acquiring image data of one or more objects simultaneously (i.e. a heart and a lung within a same patient) (Figure 5, elements 50); a gantry for positioning the plurality of detector means about one or more objects (see figure 1, elements 12, 14, 24). Although Hug does not explicitly state the specifics of the use of a controller and a data acquisition system for configuring and controlling the operation of the detectors it would have been obvious to use such apparatuses to maneuver and control the imaging device (see column 3, lines 13-18) since the goal is to image objects using collected data. Further, Hug discloses that either one or both of the detectors can be used to image a patient (see Column 6, lines 4-6), which further necessitates the use of a plurality of modes for imaging.

Further regarding independent claim 7 and dependent claim 4, Hug et al. discloses in figures 1-12, various positions, horizontal and vertical, that read over the claim limitation set forth in claim 7.

Regarding claims 2, 8 and 13, Hug discloses a gantry that suspends the first and second detectors (see Figure 1a).

Regarding claims 3, 9 and 14, Hug et al discloses a gantry with support arms to suspend the first and second detectors (see elements 23 and 24).

Regarding claims 5, 10 and 15 although Hug et al. does not disclose specifically the use of a graphical user interface (GUI) with the controller and the data acquisition system it is well known in the art to use a GUI interface so that complicated command languages need not be used during ordinary use of the imaging apparatus. GUI interfaces allow non-technical users to use the imaging system without requiring the knowledge of complicated command languages. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the GUI interface with the invention as disclosed by Hug et al. in order to make the imaging system as disclosed by Hug et al. more user friendly to those without prior training with computer command languages.

Regarding claims 6, 11 and 16 GUI interfaces may be written in any form, and it is well known in the art to have split screen modes, and full screen modes displaying whatever information regarding the respective objects of interest. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have created a GUI interface that would accommodate layouts or modes for proper image detection and reading.

Regarding claim 17, Hug et al. discloses that the detectors can be positioned in various planar regions depending upon the desired imaging area, for the same object (see figure 7 and 9). Again, as stated in the abovementioned paragraphs, Hug et al. does not specifically disclose that during the use of the detectors in multi-planes that the detectors be used to image two separate objects. When detecting one object, Hug discloses that a single planar detection can be made to image an object (see Figure 7 or 1A). Further as disclosed above, Hug et al. also discloses that a single detector may be used to detect the desired image, rendering the second detector idle. Again, as stated above it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the idle detector to detect another similar image. Further, the second image need not be in the same plane as the second image, thus creating a multi planar detection mode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a multi planar mode in order to image more than one object in different planes in order to tailor each object independently from the other so as to increase the accuracy of the detection of the object.

Regarding claim 18, it is well known in the art that the positioning of the detectors is inherent to proper detection procedure.

Regarding claim 19 and 20, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have created a computer program code to execute the method as disclosed in the independent claims 1, 7, 12, 17 and 18, because it only takes routine skill in the art to create a program tailored for certain specifications.

Response to Arguments

2. Applicant's arguments filed on October 14, 2003 have been fully considered but they are not fully persuasive.

The examiner acknowledges that the invention wherein the imaging of two patients reads over the cited art. However, the claim language states a plurality of objects, which could be interpreted as a heart and a lung of a single patient. Therefore the argument that there is no teaching, suggestion or disclosure of imaging multiple objects simultaneously is not persuasive.

Further, the argument that the unused detector could viable be used for another patient, is moot in view of the current interpretation of the meaning of a plurality of objects.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Sung whose telephone number is 703-305-0382. The examiner can normally be reached on Monday- Friday 7-4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-0956 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

CS
December 17, 2003


DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800